

WHAT IS CLAIMED IS:

1. A hybrid vehicle that is equipped with an engine and a motor as power sources and that runs with one or both of the engine and the motor being suitably selected,
5 comprising:

a heat impartation element capable of imparting heat to the engine or parts associated with the engine;

an intention determination element that determines whether or not a driver intends to start driving the vehicle before the engine is started;

10 a heat impartation control element that imparts heat to the engine or the parts associated with the engine using the heat impartation element until preheating of the engine or the parts associated with the engine is completed, if the intention determination element determines that the driver intends to start driving the vehicle before the engine is started; and

15 a running control element that performs running control of the vehicle while using the motor as a power source and refrains from starting the engine until the preheating is completed.

2. The hybrid vehicle according to claim 1, wherein the intention
20 determination element determines that the driver intends to start driving the vehicle when a starter is turned ON.

3. The hybrid vehicle according to claim 2, further comprising:
a starter switch that detects that the starter has been turned ON,
25 wherein, when the starter switch detects that the starter has been switched from OFF to ON, the intention determination element determines the driver intends to start driving the vehicle.

4. The hybrid vehicle according to claim 1, wherein the intention determination element determines that the driver intends to start driving the vehicle when a shift lever is shifted to a position enabling the vehicle to be driven.

5 5. The hybrid vehicle according to claim 4, further comprising:
a shift sensor that detects that the shift lever has been shifted to a position enabling the vehicle to be driven,
wherein, when the shift sensor detects that the shift lever has been shifted to a position enabling the vehicle to be driven, the intention determination element
10 determines the driver intends to start driving the vehicle.

6. The hybrid vehicle according to claim 1, wherein the intention determination element determines that the driver intends to start driving the vehicle when an accelerator pedal is depressed.

15 7. The hybrid vehicle according to claim 6, further comprising:
an accelerator sensor that detects that the accelerator pedal has been depressed,
wherein, when the accelerator sensor detects that a depression stroke of the
20 accelerator pedal has exceeded a predetermined amount, the intention determination element determines the driver intends to start driving the vehicle.

8. The hybrid vehicle according to claim 1, wherein the intention determination element determines that the driver intends to start driving the vehicle when a
25 vehicle speed has exceeded a predetermined speed.

9. The hybrid vehicle according to claim 8, further comprising:
a vehicle speed sensor that detects the vehicle speed,

wherein, when the vehicle speed sensor detects that the vehicle speed has exceeded the predetermined speed, the intention determination element determines the driver intends to start driving the vehicle.

5 10. The hybrid vehicle according to claim 1, wherein the intention determination element determines that the driver intends to start driving the vehicle when two or more of a condition that the starter be turned ON, a condition that the shift lever be shifted to a position enabling the vehicle to be driven, a condition that the accelerator pedal be depressed, and a condition that the vehicle speed exceed a predetermined speed are
10 fulfilled.

 11. The hybrid vehicle according to claim 10, wherein:
 a starter switch that detects that the starter has been turned ON;
 a shift sensor that detects that the shift lever has been shifted to a position
15 enabling the vehicle to be driven;
 an accelerator sensor that detects that the accelerator pedal has been depressed; and
 a vehicle speed sensor that detects the vehicle speed,
 wherein the intention determination element determines that the driver
20 intends to start driving the vehicle when at least two of the starter switch, the shift sensor, the acceleration sensor, and the vehicle speed sensor detect their respective sensed conditions.

 12. The hybrid vehicle according to claim 1, wherein the parts associated with
25 the engine are items that improve at least one of exhaust emission properties, fuel consumption, driveability, and engine startability by being preheated.

 13. The hybrid vehicle according to claim 1, wherein the parts associated with the engine include at least one of an engine coolant, a plurality of fuel injectors, a cylinder
30 block, a lubricating oil, an oxygen sensor, and an exhaust gas purification catalyst.

14. A hybrid vehicle that is equipped with an engine and a motor as power sources and that runs with one or both of the engine and the motor being suitably selected, comprising:

5 heat impartation means capable of imparting heat to the engine or parts associated with the engine;

intention determination means for determining whether or not a driver intends to start driving the vehicle before the engine is started;

10 heat impartation control means for imparting heat to the engine or the parts associated with the engine by means of the heat impartation means until preheating of the engine or the parts associated with the engine is completed, if the intention determination means determines that the driver intends to start driving the vehicle before the engine is started; and

15 running control means for performing running control of the vehicle while using the motor as a power source and refraining from starting the engine until the preheating is completed.

15. A method of controlling a hybrid vehicle that is equipped with an engine and a motor as power sources and that runs with one or both of the engine and the motor being suitably selected, comprising the steps of:

20 determining whether a driver intends to start driving the vehicle before the engine is started;

25 imparting heat to the engine or parts associated with the engine until preheating is completed if it is determined that the driver intends to start driving the vehicle; and

performing running control of the vehicle while using the motor as a power source and refraining from starting the engine until the preheating is completed.

16. The method according to claim 15, wherein the step of determining whether the driver intends to start driving the vehicle before the engine is started includes

determining whether the engine is in operation, and if the engine is not operating, reading sensors mounted on the parts associated with the engine to determine, based on the sensor readings, whether the driver intends to start driving the vehicle.

5 17. The method according to claim 15, wherein the step of imparting heat to the engine or parts associated with the engine until preheating includes reading a temperature of the engine or each of the parts associated with the engine, and making a determination on the necessity of preheating depending on whether the temperature of the engine or each of the parts associated with the engine has reached a predetermined temperature.

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 18. The method according to claim 17, wherein the step of performing running control of the vehicle while using the motor as a power source and refraining from starting the engine until the preheating is completed includes causing a flag for permitting start of the engine to be selected when it is determined in the step of imparting heat that preheating is unnecessary.

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